

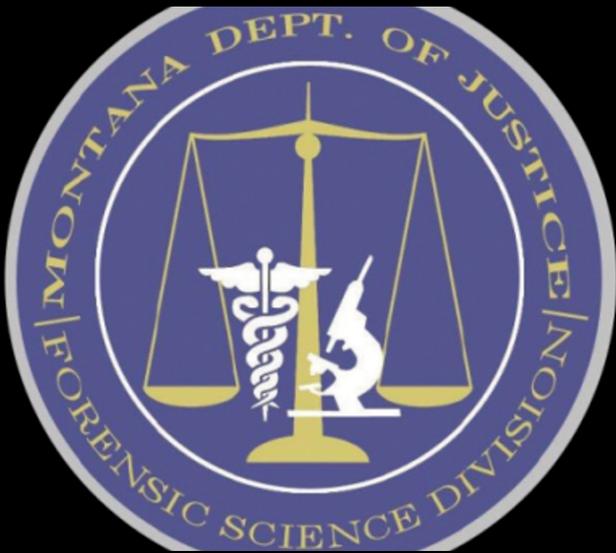
DRUG TRENDS IN MONTANA FROM A TOXICOLOGY PERSPECTIVE

Beth Smalley

esmalley@mt.gov

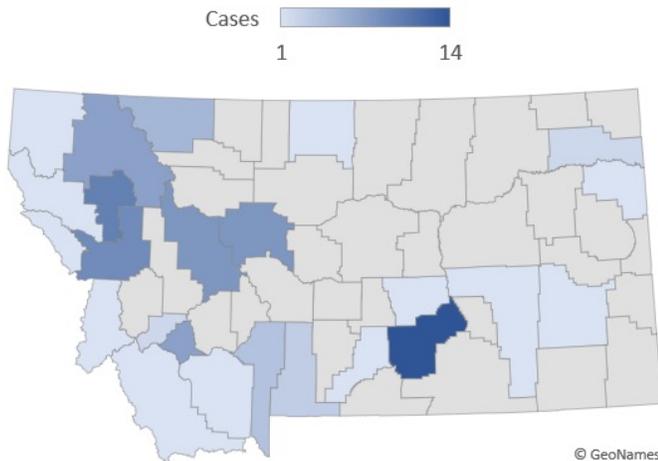
Montana Forensic Science Division

January 2023



FENTANYL TRENDS:

2022 PM Fentanyl as of Sept 2022



<u>Full Year</u>	<u>Total Positive Fentanyl Cases in Postmortem cases</u>	<u>Mean concentration</u>
2017	10	6.2 ng/mL
2018	15	13 ng/mL
2019	22	11 ng/mL
2020	41	9 ng/mL
2021	87	12 ng/mL
2022 (through Q3)	91	8.4 ng/mL
	Percent increase from 2017-2021	770%

- ❖ The presence of fentanyl in a postmortem case does not mean that it was part of the cause of death. That determination is made by the medical examiners and coroners as part of the death certificate.

FENTANYL-INDUCED MUSCLE RIGIDITY (WOODEN CHEST SYNDROME)

Respiratory depression vs. respiratory rigidity

- Depression – slowing of respiratory system
- Rigidity – muscle tightness that can close the airway
- Fentanyl can cause both (unlike other opiates).
- Anesthesiologists have known about this condition and can reverse it in a clinical setting.
- Happens immediately

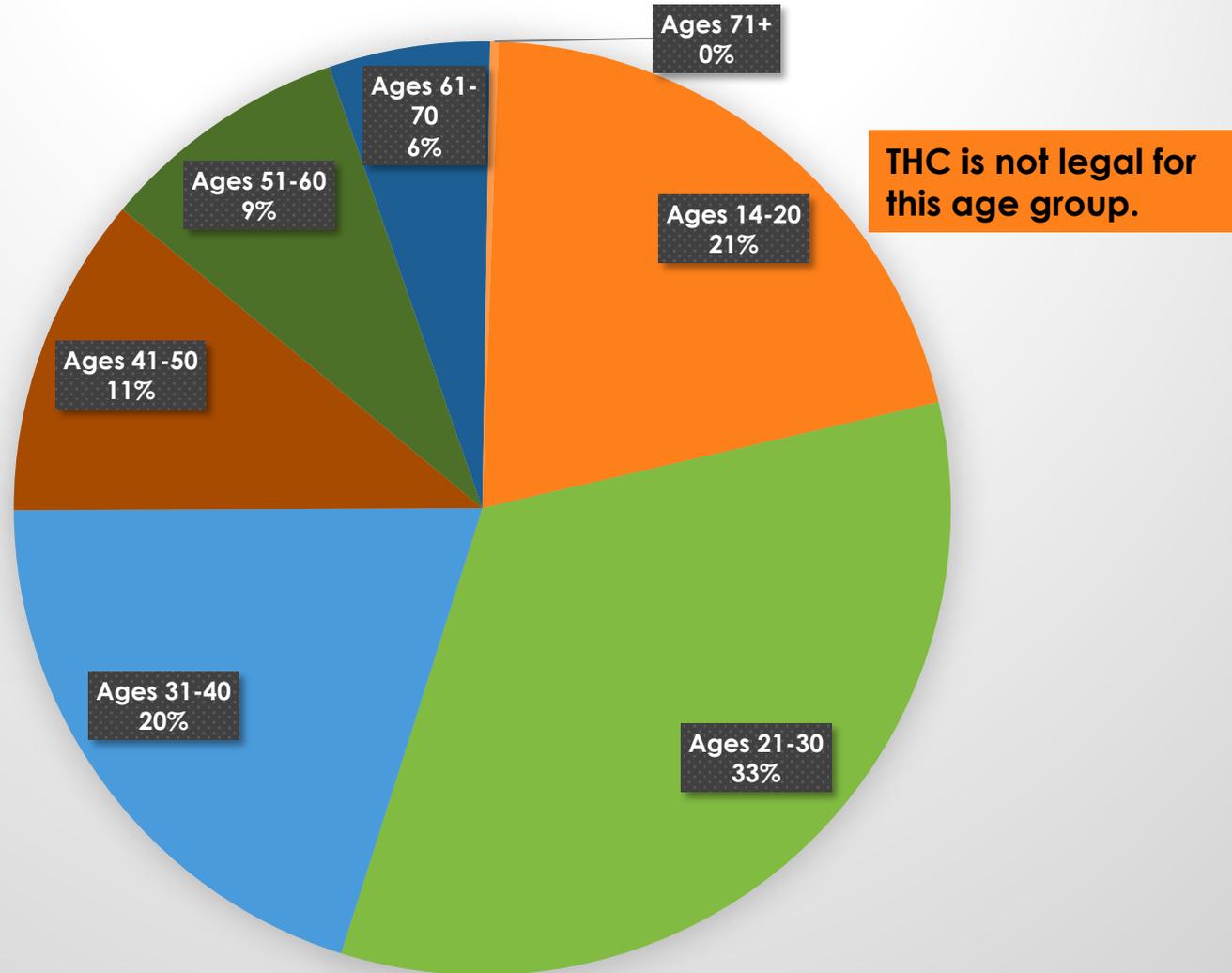
****Narcan will not reverse
respiratory rigidity****

THC TRENDS AND DRIVING:

<u>Full Year</u>	<u>Total Positive THC (or metabolite) in Driving Cases</u>	<u>Percent Increase</u>	<u>Mean Concentration</u>
2017	284		7.8 ng/mL
2018	454	59%	8.6 ng/mL
2019	464	2%	9.4 ng/mL
2020	530	14%	9.9 ng/mL
2021	621	17%	10 ng/mL
	Percent increase from 2017-2021	118%	

- ❖ The combination of ethanol and THC has the potential for additive impairment
- ❖ Canada's per se laws:
 - ❖ 0.080 g/dL ethanol
 - ❖ 5 ng/mL THC
 - ❖ Combination: 2.5 ng/mL THC + 0.050 g/dL ethanol

AGE RANGES FOR DRIVING RELATED THC POSITIVE CASES: 2021



FORBES RANKS MONTANA AS THE WORST STATE FOR DRUNK DRIVING

<https://www.forbes.com/advisor/car-insurance/worst-states-for-drunk-driving/>

“Nearly half of Montana traffic deaths (45%) in 2020 were caused by drunk drivers. That also ranked highest.”

“The state had the second-highest number of drunk drivers under 21 involved in fatal crashes (0.9 per 100,000 licensed drivers), behind only Texas.”



EMERGING TRENDS

- ❖ New forms of THC, delta 8 THC
- ❖ Designer drugs make detection challenging

Case with teenagers, one deceased, contained three new drugs:
Alpha-PVP (synthetic stimulant), AL-LAD and DOC (synthetic hallucinogens)

- ❖ Methamphetamine use still prevalent
- ❖ More polydrug cases – stats support this



THANK YOU FOR YOUR ATTENTION!

QUESTIONS?

esmalley@mt.gov